





## IDEM/EPA Requested Polychlorinated Biphenyl (PCB) Sampling of Bottom Surfaces of Storage Materials

Indianapolis Return Center 3333 N. Franklin Rd. Indianapolis, IN

Prepared for: Walmart

Prepared by: ENVIRON International Corporation Tampa, Florida

Date: **December 18, 2014** 



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# **Acronyms and Abbreviations**

ALS: ALS Environmental

cm: Centimeter

COC: Chain-of Custody

ENVIRON: Environ International Corporation

GC: Gas Chromatography

HASP: Health and Safety Plan

IDEM: Indiana Department of Environmental Management

ml: Milliliter

μg/cm<sup>2</sup>: Micrograms per square centimeter

NELAP: National Environmental Laboratory Accreditation Program

PCB: Polychlorinated Biphenyl

TSCA: Toxic Substances Control Act

USEPA: United States Environmental Protection Agency

#### 1 Introduction

ENVIRON International Corporation (ENVIRON) is pleased to provide this evaluation of Polychlorinated Biphenyl (PCB) analysis results from sampling of several materials requested by IDEM and USEPA during the course of a site survey at the Indianapolis Return Center (IRC) located at 3333 North Franklin Road in Indianapolis, Indiana. The IRC is a 275,000 square foot warehouse and distribution building on a 14.8-acre parcel.

On December 9, 2014, IDEM and USEPA conducted a survey of the facility. The agency team requested sampling of the bottom surfaces of items that had been in contact with the floor or placed on shipping pallets and resting on the conveyor system used to transfer items through the facility. ENVIRON collected the requested wipe samples from the bottom surfaces of items selected by the agency team.

As specified by the agency team, the objective of the sampling and analysis was to attempt to characterize potential PCB transfer from the floor or other horizontal surfaces to the bottom of items in contact with these surfaces. The goal of this evaluation was to determine whether conclusions and recommendations made on the basis of previous sampling conducted on the top surfaces of items, where particulate could be expected to settle, remained robust when results from the bottom surfaces of stored items, that might have been in contact with the building floor or fixed equipment were considered.

## 2 Requested Sampling Activities

During the course of their observations in the facility, IDEM and USEPA team members identified items for supplemental sampling of bottom surfaces. George Ritchotte of IDEM instructed ENVIRON as to which items the agencies requested be sampled and specified the type of sampling to be performed (i.e., wipe sampling).

The requested items for sampling included:

- One sample from a bottom deckboard of a shipping pallet resting on the concrete floor of the IRC
- Three samples from the bottom of large cardboard boxes used to contain items being processed at the IRC and resting on the top decks of shipping pallets
- Six samples from the bottom surfaces of cardboard boxes resting on rollers of the conveyor system used to transport items through the sorting modules

#### 2.1 Sampling Strategy

ENVIRON collected samples of the materials requested pursuant to the specifications of the agency team. There are six separate conveyor lines (sorting modules) at the IRC where items are processed and sorted for subsequent re-shipment. One box resting on the conveyor rollers in each sorting module was tested. The pallet was resting on the floor in the southwest portion of the warehouse, where items are received for processing. The storage boxes were from the northwest portion of the warehouse, near a battery charging station evaluated in prior investigations.

Field activities were completed on December 9, 2014. Photos of the sampled items are included in Appendix A.

#### 2.2 Sampling Methods

The specified pallet and boxes were turned over so that the formerly bottom surface could be wipe sampled. Wipe sampling was conducted using the standardized wipe methodology, which provides a quantitative estimate of surface dust and readily desorbed surface content by wiping a known surface area (100 square centimeters [cm²]). The surface area wiped from each sample was a contiguous 100 cm² square.

ENVIRON personnel donned a new pair of nitrile gloves for each wipe sample. A new 10 cm x 10 cm paperboard template was used to define each wiped sample area and also to minimize the potential for cross-contamination. A laboratory-provided gauze pad was used to collect the surface sample. The gauze was removed from its packaging and wetted with approximately 1-2 milliliters (ml) of wetting agent, hexane. The pad was then used to wipe the defined area surface using an overlapping "S" pattern in a horizontal direction. The wipe was folded in half, used side in, and the defined area was wiped using an overlapping "S" pattern in a vertical

direction. The wipe was folded, used side in, and placed in a pre-cleaned 30-ml glass vial provided by the laboratory. Sample containers were labeled and packed on ice for shipment to the laboratory.

For quality control purposes, one blank sample was submitted for PCB analysis during ENVIRON's investigations on December 9, 2014. This sample was a field blank of unwetted gauze, exposed to the environment in the IRC.

Samples were submitted under chain-of-custody protocol to ALS Environmental (ALS) in Holland, Michigan and PCB analysis using EPA method 8082 by Gas Chromatography (GC) was completed with a requested detection limit of 0.1 µg/wipe. ALS is certified under the National Environmental Laboratory Accreditation Program (NELAP).

#### 2.3 Investigation Derived Waste

Waste generated during sample collection was contained in a 55-gallon drum. The drum was labeled, sealed, and stored onsite in the southeast corner of the building pending receipt of analytical results to evaluate disposal options.

#### 2.4 Health and Safety

All field activities were performed in accordance with a site-specific health and safety plan (HASP) developed for this Facility. The HASP was prepared in accordance with Chapter 29 Code of Federal Regulations (CFR) 1910.120 to ensure that field work implemented by the ENVIRON project team was in accordance with applicable health and safety protocols.

## 3 Sampling Results

Results from sampling the materials requested by the IDEM/USEPA survey team are provided in Table 1 and the corresponding laboratory analytical report is attached as Appendix B.

Samples were analyzed for PCBs as Aroclor mixtures. The only Aroclor profile match reported was for Aroclor 1260 and all results below were reported as concentrations of Aroclor 1260.

ENVIRON collected wipe samples from the bottom surfaces of a shipping pallet and nine cardboard boxes selected by the agency team. The following results were noted:

- PCBs were not detected on wipe samples from any of the boxes used to store items during processing or transported via the conveyor system, at a reporting limit of 0.1 µg/100 cm<sup>2</sup>.
- PCBs were detected at 0.83 μg/100 cm<sup>2</sup> on the wipe sample from the wooden pallet lower deckboard.

Table 1: PCB Results for IDEM/USEPA Requested Bottom Surface Sampling

Sample No.	Description of Item	Aroclor 1260 μg/100 cm²
120914-WP-01	Bottom of pallet, southwest area of warehouse	0.83
120914-WP-02	Open Processing Box, northwest area	ND (< 0. 1)
120914-WP-03	Open Processing Box, northwest area	ND (< 0. 1)
120914-WP-04	Open Processing Box for reuse	ND (< 0. 1)
120914-WP-05	Cardboard box on conveyor rollers, Module 6	ND (< 0. 1)
120914-WP-06	Cardboard box on conveyor rollers, Module 5	ND (< 0. 1)
120914-WP-07	Cardboard box on conveyor rollers, Module 4	ND (< 0. 1)
120914-WP-08	Cardboard box on conveyor rollers, Module 3	ND (< 0. 1)
120914-WP-09	Cardboard box on conveyor rollers, Module 2	ND (< 0. 1)
120914-WP-10	Cardboard box on conveyor rollers, Module 1	ND (< 0. 1)
120914-WP-11	Field blank	ND (< 0. 1)

## 4 Conclusions

PCBs were not detected on the bottom surfaces of boxes used to store items at the IRC during processing or transported via the conveyor system. No PCB-containing particulate matter was detected during wipe sampling of the requested boxes. PCBs were detected on one sample at a concentration of  $0.83~\mu g/100~cm^2$  on the bottom surface of a shipping pallet. These findings are consistent with previous results from sampling the upper surfaces of items at the IRC.

# Appendix A PHOTOLOG OF SAMPLE ITEMS

# Photographs of Wipe Samples Collected from the Bottom Surfaces of Items Specified by IDEM/USEPA

The following photographs identify each of the sampled items at the IRC where a wipe sample was collected from the bottom surface of the specified items.



#### Sample 120914-WP-01

Aroclor 1260: 0.83 µg/wipe

Bottom of pallet

Located near the employee entrance to the warehouse in the south west portion of the warehouse

Non Con Recall Area



#### Sample 120914-WP-02

Aroclor 1260: <0.10 µg/wipe

Bottom of "processing box" – large boxes used to sort items returned

Overstock Area





#### Sample 120914-WP-03

Aroclor 1260: <0.10 µg/wipe

Bottom of "processing box" – large boxes used to sort items returned

Overstock Area



#### Samples 120914-WP-02 & 120914-WP-03

Aroclor 1260: <0.10 µg/wipe

"Processing boxes" – large boxes used to sort items returned

Overstock Area





#### Sample 120914-WP-04

Aroclor 1260: <0.10 µg/wipe

Walmart Return Center Box

Overstock Area (eastern side of conveyor)



#### Sample 120914-WP-05

Aroclor 1260: <0.10 µg/wipe

Location: Upper Module 6 – box located on the rolling conveyor system

Corrugated box





#### Sample 120914-WP-06

Aroclor 1260: <0.10 µg/wipe

Location: Upper Module 5 – box located on the rolling conveyor system

Corrugated box



#### Sample 120914-WP-07

Aroclor 1260: <0.10 µg/wipe

Location: Upper Module 4 – box located on the rolling conveyor system

Corrugated box





#### Sample 120914-WP-08

Aroclor 1260: <0.10 µg/wipe

Location: Upper Module 3 – box located on the rolling conveyor system

Sewing machine



#### Sample 120914-WP-09

Aroclor 1260: <0.10 µg/wipe

Location: Upper Module 2 – box located on the rolling conveyor system

Saltwater pool filter system





#### Sample 120914-WP-10

Aroclor 1260: <0.10 µg/wipe

Location: Upper Module 1 – box located on the rolling conveyor system

Corrugated box





# Appendix B LABORATORY ANALYTICAL REPORT



11-Dec-2014

Bob DeMott ENVIRON International Corp. 10150 Highland Manor Dr. Suite 440 Tampa, FL 33610

Re: Indianapolis Wipes Work Order: 1412489

Dear Bob,

ALS Environmental received 11 samples on 10-Dec-2014 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 19.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Date: 11-Dec-14

**Client:** ENVIRON International Corp.

Project: Indianapolis Wipes Work Order Sample Summary

Work Order: 1412489

I ah Sama ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received Hold
Lav Samp ID	Chefit Sample 1D	<u> Mati ix</u>	Tag Number	Conection Date	Date Received 11010
1412489-01	120914-WP-01	Wipe		12/9/2014 16:20	12/10/2014 09:30
1412489-02	120914-WP-02	Wipe		12/9/2014 16:30	12/10/2014 09:30
1412489-03	120914-WP-03	Wipe		12/9/2014 16:35	12/10/2014 09:30
1412489-04	120914-WP-04	Wipe		12/9/2014 16:36	12/10/2014 09:30
1412489-05	120914-WP-05	Wipe		12/9/2014 16:40	12/10/2014 09:30
1412489-06	120914-WP-06	Wipe		12/9/2014 16:45	12/10/2014 09:30
1412489-07	120914-WP-07	Wipe		12/9/2014 16:50	12/10/2014 09:30
1412489-08	120914-WP-08	Wipe		12/9/2014 16:55	12/10/2014 09:30
1412489-09	120914-WP-09	Wipe		12/9/2014 17:00	12/10/2014 09:30
1412489-10	120914-WP-10	Wipe		12/9/2014 17:05	12/10/2014 09:30
1412489-11	120914-WP-11	Wipe		12/9/2014 17:10	12/10/2014 09:30

Date: 11-Dec-14

**Client:** ENVIRON International Corp. **QUALIFIERS,** 

Indianapolis Wipes **Project:** ACRONYMS, UNITS

1412489 WorkOrder:

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P -	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

**Units Reported** Description Micrograms per Wipe μg/wipe

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-01
 Lab ID:
 1412489-01

 Collection Date:
 12/9/2014 04:20 PM
 Matrix:
 WIPE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			SW808	2	Prep: EPA/600/R-07 / 12/10/14	Analyst: <b>BLM</b>
Aroclor 1016	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1221	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1232	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1242	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1248	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1254	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1260	0.83		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1262	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
Aroclor 1268	U		0.10	μg/wipe	1	12/10/2014 06:53 PM
PCBs, Total	0.83		0.10	μg/wipe	1	12/10/2014 06:53 PM
Surr: Decachlorobiphenyl	99.6		40-140	%REC	1	12/10/2014 06:53 PM
Surr: Tetrachloro-m-xylene	95.2		40-140	%REC	1	12/10/2014 06:53 PM

**Date:** 11-Dec-14

Surr: Tetrachloro-m-xylene

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-02
 Lab ID:
 1412489-02

 Collection Date:
 12/9/2014 04:30 PM
 Matrix:
 WIPE

88.8

Report **Dilution Analyses** Result **Date Analyzed** Limit Qual Units **Factor** Prep: EPA/600/R-07 / **PCBS** SW8082 Analyst: BLM 12/10/14 Aroclor 1016 U 0.10 μg/wipe 12/10/2014 07:14 PM Aroclor 1221 U 12/10/2014 07:14 PM 0.10 1 μg/wipe Aroclor 1232 U 0.10 μg/wipe 1 12/10/2014 07:14 PM Aroclor 1242 U 0.10 μg/wipe 1 12/10/2014 07:14 PM Aroclor 1248 U 0.10 12/10/2014 07:14 PM μg/wipe 1 Aroclor 1254 U 0.10 µg/wipe 1 12/10/2014 07:14 PM Aroclor 1260 U 0.10 μg/wipe 1 12/10/2014 07:14 PM Aroclor 1262 U 0.10 μg/wipe 1 12/10/2014 07:14 PM Aroclor 1268 U 0.10 μg/wipe 1 12/10/2014 07:14 PM PCBs, Total U 0.10 µg/wipe 1 12/10/2014 07:14 PM Surr: Decachlorobiphenyl 40-140 %REC 12/10/2014 07:14 PM 90.4 1

40-140

%REC

1

Date: 11-Dec-14

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

12/10/2014 07:14 PM

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-03
 Lab ID:
 1412489-03

 Collection Date:
 12/9/2014 04:35 PM
 Matrix:
 WIPE

Report **Dilution Analyses** Result **Date Analyzed** Limit Qual Units **Factor** Prep: EPA/600/R-07 / **PCBS** SW8082 Analyst: BLM 12/10/14 Aroclor 1016 U 0.10 μg/wipe 12/10/2014 07:35 PM Aroclor 1221 U 0.10 1 12/10/2014 07:35 PM μg/wipe Aroclor 1232 U 0.10 μg/wipe 1 12/10/2014 07:35 PM Aroclor 1242 U 0.10 μg/wipe 1 12/10/2014 07:35 PM Aroclor 1248 U 0.10 12/10/2014 07:35 PM µg/wipe 1 Aroclor 1254 U 0.10 µg/wipe 1 12/10/2014 07:35 PM Aroclor 1260 U 0.10 μg/wipe 1 12/10/2014 07:35 PM Aroclor 1262 U 0.10 μg/wipe 1 12/10/2014 07:35 PM Aroclor 1268 U 0.10 μg/wipe 1 12/10/2014 07:35 PM PCBs, Total U 0.10 µg/wipe 1 12/10/2014 07:35 PM Surr: Decachlorobiphenyl 101 40-140 %REC 12/10/2014 07:35 PM 1 Surr: Tetrachloro-m-xylene 98.1 40-140 %REC 1 12/10/2014 07:35 PM

Date: 11-Dec-14

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-04
 Lab ID:
 1412489-04

 Collection Date:
 12/9/2014 04:36 PM
 Matrix:
 WIPE

Report **Dilution Analyses** Result **Date Analyzed** Limit Qual Units **Factor** Prep: EPA/600/R-07 / **PCBS** SW8082 Analyst: BLM 12/10/14 Aroclor 1016 U 0.10 μg/wipe 12/10/2014 07:56 PM Aroclor 1221 U 0.10 1 12/10/2014 07:56 PM μg/wipe Aroclor 1232 U 0.10 μg/wipe 1 12/10/2014 07:56 PM Aroclor 1242 U 0.10 μg/wipe 1 12/10/2014 07:56 PM Aroclor 1248 U 0.10 12/10/2014 07:56 PM μg/wipe 1 Aroclor 1254 U 0.10 µg/wipe 1 12/10/2014 07:56 PM Aroclor 1260 U 0.10 μg/wipe 1 12/10/2014 07:56 PM Aroclor 1262 U 0.10 μg/wipe 1 12/10/2014 07:56 PM Aroclor 1268 U 0.10 μg/wipe 1 12/10/2014 07:56 PM PCBs, Total U 0.10 µg/wipe 1 12/10/2014 07:56 PM Surr: Decachlorobiphenyl 87.5 40-140 %REC 12/10/2014 07:56 PM 1 Surr: Tetrachloro-m-xylene 88.4 40-140 %REC 1 12/10/2014 07:56 PM

Date: 11-Dec-14

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-05
 Lab ID:
 1412489-05

 Collection Date:
 12/9/2014 04:40 PM
 Matrix:
 WIPE

Report **Dilution Analyses** Result **Date Analyzed** Limit Qual Units **Factor** Prep: EPA/600/R-07 / **PCBS** SW8082 Analyst: BLM 12/10/14 Aroclor 1016 U 0.10 μg/wipe 12/10/2014 08:17 PM Aroclor 1221 U 0.10 1 12/10/2014 08:17 PM μg/wipe Aroclor 1232 U 0.10 μg/wipe 1 12/10/2014 08:17 PM Aroclor 1242 U 0.10 μg/wipe 1 12/10/2014 08:17 PM Aroclor 1248 U 0.10 12/10/2014 08:17 PM µg/wipe 1 Aroclor 1254 U 0.10 µg/wipe 1 12/10/2014 08:17 PM 12/10/2014 08:17 PM Aroclor 1260 U 0.10 μg/wipe 1 Aroclor 1262 U 0.10 μg/wipe 1 12/10/2014 08:17 PM Aroclor 1268 U 0.10 μg/wipe 1 12/10/2014 08:17 PM PCBs, Total U 0.10 µg/wipe 1 12/10/2014 08:17 PM Surr: Decachlorobiphenyl 88.5 40-140 %REC 12/10/2014 08:17 PM 1 Surr: Tetrachloro-m-xylene 89.2 40-140 %REC 1 12/10/2014 08:17 PM

Date: 11-Dec-14

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-06
 Lab ID:
 1412489-06

Collection Date: 12/9/2014 04:45 PM Matrix: WIPE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			SW808	2	Prep: EPA/600/R-07 / 12/10/14	Analyst: <b>BLM</b>
Aroclor 1016	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1221	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1232	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1242	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1248	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1254	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1260	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1262	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Aroclor 1268	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
PCBs, Total	U		0.10	μg/wipe	1	12/10/2014 09:00 PM
Surr: Decachlorobiphenyl	91.4		40-140	%REC	1	12/10/2014 09:00 PM
Surr: Tetrachloro-m-xylene	92.4		40-140	%REC	1	12/10/2014 09:00 PM

**Date:** 11-Dec-14

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-07
 Lab ID:
 1412489-07

Collection Date: 12/9/2014 04:50 PM Matrix: WIPE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			SW808	2	Prep: EPA/600/R-07 / 12/10/14	Analyst: <b>BLM</b>
Aroclor 1016	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1221	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1232	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1242	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1248	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1254	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1260	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1262	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Aroclor 1268	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
PCBs, Total	U		0.10	μg/wipe	1	12/10/2014 09:21 PM
Surr: Decachlorobiphenyl	92.5		40-140	%REC	1	12/10/2014 09:21 PM
Surr: Tetrachloro-m-xylene	90.3		40-140	%REC	1	12/10/2014 09:21 PM

**Date:** 11-Dec-14

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-08
 Lab ID:
 1412489-08

 Collection Date:
 12/9/2014 04:55 PM
 Matrix:
 WIPE

Report **Dilution Analyses** Result **Date Analyzed** Limit Qual Units **Factor** Prep: EPA/600/R-07 / **PCBS** SW8082 Analyst: BLM 12/10/14 Aroclor 1016 U 0.10 μg/wipe 12/10/2014 09:42 PM Aroclor 1221 U 12/10/2014 09:42 PM 0.10 1 μg/wipe Aroclor 1232 U 0.10 μg/wipe 1 12/10/2014 09:42 PM Aroclor 1242 U 0.10 µg/wipe 1 12/10/2014 09:42 PM Aroclor 1248 U 0.10 12/10/2014 09:42 PM μg/wipe 1 Aroclor 1254 U 0.10 µg/wipe 1 12/10/2014 09:42 PM Aroclor 1260 U 0.10 μg/wipe 1 12/10/2014 09:42 PM Aroclor 1262 12/10/2014 09:42 PM U 0.10 μg/wipe 1 Aroclor 1268 U 0.10 μg/wipe 1 12/10/2014 09:42 PM PCBs, Total U 0.10 µg/wipe 1 12/10/2014 09:42 PM Surr: Decachlorobiphenyl 40-140 %REC 12/10/2014 09:42 PM 90.6 1 Surr: Tetrachloro-m-xylene 90.7 40-140 %REC 1 12/10/2014 09:42 PM

Date: 11-Dec-14

Surr: Tetrachloro-m-xylene

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-09
 Lab ID:
 1412489-09

 Collection Date:
 12/9/2014 05:00 PM
 Matrix:
 WIPE

87.7

Report **Dilution Analyses** Result **Date Analyzed** Limit Qual Units **Factor** Prep: EPA/600/R-07 / **PCBS** SW8082 Analyst: BLM 12/10/14 Aroclor 1016 U 0.10 μg/wipe 12/10/2014 10:03 PM Aroclor 1221 U 12/10/2014 10:03 PM 0.10 1 μg/wipe Aroclor 1232 U 0.10 μg/wipe 1 12/10/2014 10:03 PM Aroclor 1242 U 0.10 µg/wipe 1 12/10/2014 10:03 PM Aroclor 1248 U 0.10 12/10/2014 10:03 PM μg/wipe 1 Aroclor 1254 U 0.10 µg/wipe 1 12/10/2014 10:03 PM Aroclor 1260 U 0.10 μg/wipe 1 12/10/2014 10:03 PM Aroclor 1262 12/10/2014 10:03 PM U 0.10 μg/wipe 1 Aroclor 1268 U 0.10 μg/wipe 1 12/10/2014 10:03 PM PCBs, Total U 0.10 µg/wipe 1 12/10/2014 10:03 PM Surr: Decachlorobiphenyl 40-140 %REC 12/10/2014 10:03 PM 89.8 1

40-140

%REC

1

Date: 11-Dec-14

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

12/10/2014 10:03 PM

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-10
 Lab ID:
 1412489-10

 Collection Date:
 12/9/2014 05:05 PM
 Matrix:
 WIPE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			SW808	2	Prep: EPA/600/R-07 / 12/10/14	Analyst: <b>BLM</b>
Aroclor 1016	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1221	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1232	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1242	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1248	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1254	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1260	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1262	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Aroclor 1268	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
PCBs, Total	U		0.10	μg/wipe	1	12/10/2014 10:24 PM
Surr: Decachlorobiphenyl	85.5		40-140	%REC	1	12/10/2014 10:24 PM
Surr: Tetrachloro-m-xylene	83.6		40-140	%REC	1	12/10/2014 10:24 PM

**Date:** 11-Dec-14

**Client:** ENVIRON International Corp.

 Project:
 Indianapolis Wipes
 Work Order:
 1412489

 Sample ID:
 120914-WP-11
 Lab ID:
 1412489-11

 Collection Date:
 12/9/2014 05:10 PM
 Matrix:
 WIPE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			SW808	2	Prep: EPA/600/R-07 / 12/10/14	Analyst: <b>BLM</b>
Aroclor 1016	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1221	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1232	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1242	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1248	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1254	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1260	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1262	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Aroclor 1268	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
PCBs, Total	U		0.10	μg/wipe	1	12/10/2014 10:46 PM
Surr: Decachlorobiphenyl	83.2		40-140	%REC	1	12/10/2014 10:46 PM
Surr: Tetrachloro-m-xylene	83.2		40-140	%REC	1	12/10/2014 10:46 PM

**Date:** 11-Dec-14

Date: 11-Dec-14

# QC BATCH REPORT

**Client:** ENVIRON International Corp.

**Work Order:** 1412489

**Project:** Indianapolis Wipes

Batch ID: 65833	Instrument	ID GC14		Method	: SW80	82						
MBLK	Sample ID: MBL	K-65833-65833				ι	Jnits: µg/v	vipe	Analy	ysis Date:	12/10/2014	06:10 PM
Client ID:		Run ID	: GC14_	141210A		Se	eqNo: <b>307</b>	0790	Prep Date: 12	2/10/2014	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016		U	0.10									
Aroclor 1221		U	0.10									
Aroclor 1232		U	0.10									
Aroclor 1242		U	0.10									
Aroclor 1248		U	0.10									
Aroclor 1254		U	0.10									
Aroclor 1260		U	0.10									
Aroclor 1262		U	0.10									
Aroclor 1268		U	0.10									
PCBs, Total		U	0.10									
Surr: Decachlord	biphenyl	0.5089	0	0.5		0	102	50-130		0		
Surr: Tetrachloro	o-m-xylene	0.488	0	0.5		0	97.6	50-130		0		
LCS	Sample ID: LCS-	65833-65833				ι	Jnits: µg/v	vipe	Analy	sis Date:	12/10/2014	06:31 PM
Client ID:		Run ID	: GC14_	141210A		Se	eqNo: <b>307</b>	0792	Prep Date: 12	2/10/2014	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016		4.804	0.10	5		0	96.1	50-130		0		
Aroclor 1260		4.84	0.10	5		0	96.8	50-130		0		
Surr: Decachloro	biphenyl	0.4959	0	0.5		0	99.2	50-130		0		
Surr: Tetrachlord	o-m-xylene	0.4943	0	0.5		0	98.9	50-130		0		
The following sam	nples were analyzed	I in this batch:	14	112489-01A 112489-04A 112489-07A 112489-10A	14 14	4124 4124	189-02A 189-05A 189-08A 189-11A	14	12489-03A 12489-06A 12489-09A			



Cincinnati, OH +1 513 733 5336

Everett, WA +1 425 356 2600

Fort Collins, CO +1 970 490 1511 Hölland, Mi +1 616 399 6070

## **Chain of Custody Form**

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Houston, TX +1 281 530 5656

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South Charleston, WV +1 304 356 3168

+1 717 944 5541

Salt Lake City, UT +1 801 266 7700

+1 717 505 5280

Enviro	nmental		ALS Project Manager:	ALS Work Order #:  U 2 429					
<u> </u>	ustomer information		Project Information		/Method Request for Analysis				
Purchase Order		Project Name		A PCBs					
Work Order		Project Number		<b>B</b>					
Company Name	ENVIRON International Corp.	Bill To Company	ENVIRON International Corp.	G - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Send Report To	Marjory Sure	Invoice Attn		B					
	10150 Highland Manor Dr.		10150 Highland Manor Dr	E					
Address	Suite 440	Address	Sulte 440	F					
Gity/State/Zip	Tampa, FL 33610	City/State/Zip	Tampa, FL 33610	G					
Phone	(813) 628-4325	Phone	(813) 628-4325						
Fax		Fax							
e-Mail Address		e-Mail Address		J Park to the second					
No. '	Sample Description		ime Matrix Pres. #Bottles	A B C D	E F G H I J Hold				
1 [209]	4117-01	29/14/16	20 Wips Hexays I	XIS					
2 120911	4-WP-02		30	X					
3 120914	KWP-03	16	35	X					
4 120914	Y-MP-04	16	36						
5 209 L	15W8 - 050	6	40 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$\times$					
6 120914	4-W-06		¥S	X					
7 70914	1441-07	1/4	SO A A A A A A A A A A A A A A A A A A A						
8 128914	1-WP-08	10	<b>\$5</b>	$\nearrow$					
9 120914	7-WP-69	[7]	60	X					
10 120914	-we-10		05 (*   -   -						
Sampler(s) Please P	rint & Sign	Shipment Met	Required Turnaround Time: (C	Check Box)  Figure 1 2 Will Days	Results Due Date:				
Relinquished by	2/9/2014]	830 Recei	ved by: FED EX	Notes:					
Melinquished by:	C Date:	ne: Recei	yed Dy Laboratory):	Cooler ID Cooler Temp.	QC Package: (Check One Box Below)				
Logged by (Laboratory)	t j Daje: / Tir		(activy (Laboratory)	4.0%	Level    Std QC TRRP CheckList				
/ Preservative Key:	DCS 12 10 14 1 1-HCI 2-HNO 3-H <sub>2</sub> SO <sub>4</sub> 4-NaO	<u>රි</u> වළ / i 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6	i-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035		Devel IV SW846/CLP				
, reacreaters	THOU CHISTON THOU			- T					

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.

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Preservative Kev:

1-HCI

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+1.970 490 1511 Everett, WA Holland, MI +1 425 356 2600 +1 616 399 6070

Fort Collins, CO

## **Chain of Custody Form**

Houston, TX									
÷Ι	281	530	5650						

Soring City, PA +1 610 948 4903 South Charleston, WV +1 304 356 3168

Middletown, PA +1 717 944 5541 Salt Lake City, UT +1 801 266 7700

York, PA +1 717 505 5280

Page \_

coc ID: 113509 ALS Work Order #: ALS Project Manager: Parameter/Method Request for Analysis Project Information **Customer Information** PC8s. Purchase Order **Project Name** Work Order Project Number 8 Company Name **Bill To Company ENVIRON International Corp ENVIRON International Corp.** Send Report To Marjory Sure C Invoice Attn 10150 Highland Manor Dr. 10150 Highland Manor Dr. Address Address **Suite 440** Bulte 440 City/State/Zip City/State/Zip Tampa, FL 33610 Tampa, FL 33610 Phone 1813) 628-4325 Phone (913) 628-4325 Fax Fax e-Mail Address e-Mail Address # Bottles Hold Matrix Sample Description Required Turnaround Time: (Check Box) Results Due Date: Notes: Cooler ID Cooler Temp. QC Package: (Check One Box Below Relinquished by: Levei II Std QC TRRP CheckList Logged by (Laboratory): Level III Std QC/Raw Data TRRP Level IV Level IV 8W848/CLP

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

6-NaHSO.

7-Other

3. The Chain of Custody is a legal document. All information must be completed accurately.

352 128th Avenue Holland, Michigan 49424 161, 1616 399 6080 281, 996 6183 Fax, 11 616 199 (SJY :0)8( vrž euglicoumeural NB nextone lead FedEx Priority Overnight Next lessness receiving Telday sta delivered on Monday unless SATUR FedEx Express Saver Third business day 1. Saturday Delivery NOT available 5 Packaging \* Declared ratio leak \$500 FødEx Pak\* 2 Your Internal Billing Reference Special Handling and Delivery Signature Options Cargo Aircraft Driv 644

0

#### Sample Receipt Checklist

Client Name: ENVIRONINT - FL				Date/Time Received: 10-Dec-14 09:30							
Work Order: <u>1412489</u>					Received by:		<u>DS</u>				
Checklist complet	ted by <u>Diane Shaw</u>	10	-Dec-14	_	Reviewed by:	Chad	Whelton ire	v			10-Dec-14 Date
Matrices: Carrier name:	Wipe FedEx	l								ļ	
Shipping container/cooler in good condition?			Yes	<b>✓</b>	No 🗆	Not	Present				
Custody seals intact on shipping container/cooler?			Yes	<b>✓</b>	No 🗌	Not	Present				
Custody seals intact on sample bottles?			Yes		No 🗌	Not	Present	<b>✓</b>			
Chain of custody present?			Yes	<b>✓</b>	No 🗌						
Chain of custody signed when relinquished and received?			Yes	<b>✓</b>	No 🗌						
Chain of custody agrees with sample labels?			Yes	<b>✓</b>	No 🗌						
Samples in prope	er container/bottle?		Yes	<b>✓</b>	No 🗌						
Sample container	rs intact?		Yes	<b>✓</b>	No 🗌						
Sufficient sample	volume for indicated test?		Yes	<b>✓</b>	No 🗌						
All samples receiv	ved within holding time?		Yes	<b>✓</b>	No 🗆						
Container/Temp E	Blank temperature in complianc	e?	Yes	<b>✓</b>	No 🗆						
Sample(s) received on ice? Temperature(s)/Thermometer(s):			Yes 4.0 c	<b>✓</b>	No 🗆						
Cooler(s)/Kit(s):											
Date/Time sample			2014	10:06:21 AM	Na VOA	المادات المادات	:44	<b>✓</b>			
Water - VOA vials		Yes Yes		No □		vials subr	nittea	V			
Water - pH acceptable upon receipt?					No □ No □		<b>✓</b>				
pH adjusted? pH adjusted by:			Yes -		NO 🗀	IN/A	<u> </u>				
Login Notes:											
		_ — — — — -									
Client Contacted: Date Contacted:		Date Contacted:			Person Contacted:						
Contacted By: Regarding:											
Comments:											
CorrectiveAction:											
									SR	C Pac	re 1 of 1